Claims

WE CLAIM:

1. A transceiver apparatus for creating a wireless personal local area network between a computer terminal and at least one peripheral device comprising:

radio means for receiving and transmitting information between said computer terminal and said peripheral device;

microprocessor means operably attached to said radio means for controlling said information received and transmitted by said radio means; and

interface means operably attached to said microprocessor means for operably attaching said transceiver to said terminal and said peripheral device.

2. The transceiver apparatus of claim 1 wherein said transceiver apparatus is removable from said computer terminal and said other peripheral devices whereby said removed transceiver apparatus can be replaced by a second transceiver apparatus having radio means for receiving and transmitting information and microprocessor means operably attached to said radio means for controlling said information received and transmitted by said radio means.

3. The transceiver apparatus of claim 2 wherein said second transceiver apparatus utilizes a different radio frequency for transmitting and receiving said information.

4. The transceiver apparatus of claim 2 wherein said second transceiver apparatus utilizes a different transmission power for transmitting and receiving said information.

5. The transceiver apparatus of claim 2 wherein said second transceiver apparatus utilizes a different data transfer rate for transmitting and receiving said information.

6. The transceiver apparatus of claim 2 wherein said second transceiver apparatus utilizes a different modulation method for transmitting and receiving said information.

7. The transceiver apparatus of claim 1 wherein said microprocessor means utilizes idle sense protocol for controlling said information received and transmitted and for controlling power management and collision indications.

~~8. A personal local area network for a data capture~~ system, comprising:

a first, a second and a third mobile data device, each data device having a mobile power supply;

said second and said third mobile data device each being of said size and weight to be carried by an individual user and being operable to collect data and display data to the individual user; and

a first, a second and a third radio frequency unit operably and respectively attached to said first, said second and said third mobile data devices, said radio frequency units providing radio frequency communications between said first mobile data device and at least one of said second and said third mobile data devices and wherein said second and said third radio frequency units provide communication directly therebetween in addition to the provision of radio frequency communication with said first ~~radio frequency unit.~~

9. The personal local area network for a data capture system of claim 8 wherein the mobile power supply of said first mobile data device has a relatively high capacity in relation to said mobile power supplies of said second and said third mobile data devices, and said first mobile data device is in a standard mode wherein said first mobile data device transmits IDLE SENSE messages scheduled such that said second and said third radio frequency units can remain dormant between IDLE SENSE messages as part of an idle sense protocol and can be activated when they have data to transmit at the time of the IDLE SENSE message, and can be activated in a receive mode to receive a data message in timed relation to each IDLE SENSE message.

10. The personal local area network for a data capture system of claim 8 wherein the use of idle sense protocol increases efficiencies in power management and consumption of said mobile data devices.

11. The personal local area network for a data capture system of claim 9 wherein one of said second and said third mobile data devices automatically assumes the transmission of scheduled IDLE SENSE messages when said first radio frequency unit is out of range thereof.

12. The personal local area network for a data capture system of claim 11 wherein said first mobile data device automatically restores the standard mode of radio frequency communication when it comes back into range of said second and said third mobile data devices.

13. The personal local area network for a data capture system of claim 9 wherein said first mobile data device is carried by a mobile vehicle and said second and said third mobile data devices serve to collect and store data both within the range of said first radio frequency unit and outside the range of said first radio frequency unit.

14. The personal local area network for a data capture system of claim 7 wherein said first, said second and said third mobile data devices are all carried by an individual user.

15. The personal local area network for a data capture system of claim 8 wherein said second said third radio frequency units have a communication range of approximately two meters or less.

16. The personal local area network for a data capture system of claim 15 wherein said first radio frequency unit has a range of approximately ten meters.

17. The personal local area network for a data capture system of claim 8 wherein said first radio frequency unit has a range of approximately ten meters.

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